

Cardiology Unit

Carlo CIPOLLA, MD
Director

STAFF Senior Deputy Directors: Maurizio Civelli, MD, Giuseppina Lamantia, MD
Research Doctorate, Senior Deputy Director: Daniela Cardinale, MD
Senior Assistant: Nicola Colombo, MD
Assistant: Alessandro Colombo, MD
Consultant: Cesare Fiorentini, MD, PhD, University of Milan
Fellow: Gaia De Giacomi, MD
Secretaries: Elena Gaibor, Paola Lasagna
Chief Nurse: Arnaldo Zanelotti
Nurses: Ida Del Re, Maria Di Leo, Alessandra Pomponio
Co-ordinator Physiotherapist: Claudia Simoncini
Physiotherapists: Federerica Baggi, Emilio Bonacossa, Massimo Perego, Claudio Zanetti
Fellow Physiotherapist: Fabio Sandrin

Activities 2007. Cardiology Unit's activities relate to pre- and postoperative cardiologic assessment, respiratory function evaluations, general internal medicine aspects, antismoking activities, extensive clinical monitoring and therapy for internal wards, emergencies, patient transport.

The Cardiology Unit also coordinates the activities of the Service of Physiotherapy.

The specific cardiologic activity is strongly oriented to the diagnosis and therapy of cardiac disorders in order to treat comorbidities (over 30% of cancer patients present concomitant cardiovascular diseases) as well as potential or evident consequences of oncologic treatments (cardiotoxicity). Cardiologic evaluations, either clinical or instrumental, are present in over 75 IEO scientific research protocols. In 2007 the Unit performed:

- a) urgent care monitorization and therapy of over 1100 internal and outpatients;
- b) respiratory physiopathology diagnostic and assistance (more than 1750/year);
- d) antismoking activities for patients and employees;

- e) physiotherapeutic activities (more than 8800/year);
- f) clinical consultations and/or echocardiographic examinations for over 2150 patients enrolled in different Division's scientific protocols.

Overall, the Cardiology Unit visited in the year over 11500 patients (55% internal patients, 35% pre-admission or outdoor new patients; 10% follow up controls), accounting for more than 36500 written diagnostic elements.

Original clinical and scientific activities of the Unit can be summarized as follow:

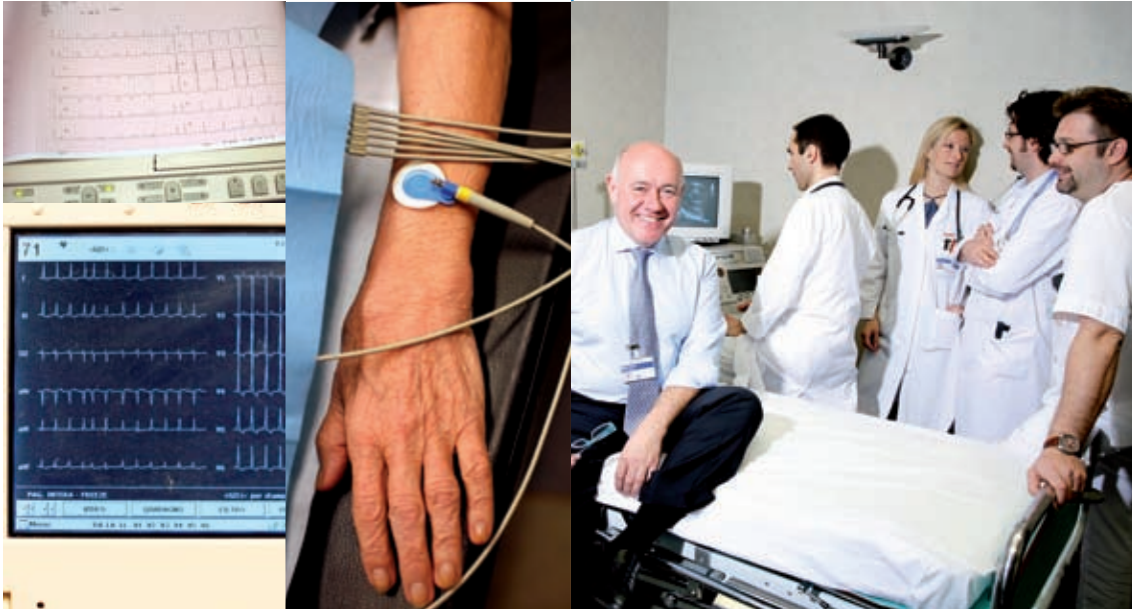
1) Diagnosis of Cardiotoxicity: the clinical implication of chemotherapy related cardiotoxicity is particularly relevant in those cancer patients in which the onset of possible cardiac dysfunction, even asymptomatic, seriously limits therapeutic opportunities and negatively impacts on clinical outcome; in our clinical practice we utilize different tools for the early identification of patients at increased risk of cardiotoxicity as biomarkers of myocardial damage (Troponin I and N-terminal-pro Brain Natriuretic Peptide), and low-dose dobutamine stress-echocardiography, that allows early detection of left ventricular contractile reserve reduction;

2) Cardiotoxicity Treatment: chemotherapy induced cardiotoxicity can result in a cardiomyopathy generally considered to be irreversible and leading to congestive heart failure and death; in our experience most patients receiving adequate treatment (including beta-blockers, ACE-inhibitors, diuretics, anti-aldosterone agents) expressed relevant improvement in clinical status and cardiac function;

3) Malignant Pericardial Effusion Treatment: malignant pericardial effusion and cardiac tamponade are common complications of several different neoplastic disease (breast cancer, lung cancer, lymphomas, melanomas); on the basis of our previous published studies, we routinely perform pericardiocentesis as an emergency life-saving procedure

Cardiology

Admissions		Day Hospital	
Admissions	13	Cycles	-
-Surgery Adm	-	-Surgery Cyc	-
-Medical Adm	13	-Medical Cyc	-
Surgical Index	0,00%	Surgical Index	0,00%
Days	-	Treatments	-
Alos	-	Alos Treat	-
ARW	0,53	ARW	-



and rapid subsequent intrapericardial antitlastic sclerosing therapy with Thio-tepa, obtaining dramatic clinical improvement, highly significant life expectancy increase, with no side effects and extremely low recurrences rate;

4) Monitorization of Experimental Phase 1 Chemotherapy Induced ECC Abnormalities and Arrhythmias: several distinct ecg changes have been described during or soon after the administration of chemotherapeutic agents; the regulations aspects of new drugs development strongly focused the pattern of the QT intervals, since the observation that even modest QT prolongation is associated, in some case, with the onset of life-threatening arrhythmias, as “torsade

de points” or ventricular fibrillation; we perform strict telemetric complete clinical and electrocardiographic monitoring during the critical phase of new drugs infusion.

In 2007 the Unit organized the second cycle of the “Incontri di Cardiologia Clinica”, 12 monographic brief workshops with invited guests discussing specific cardiological or cardio-oncological issues.

5 peer reviewed articles allowed to obtain over 28 impact factors points.